

Please amend the Abstract as follows:

## ABSTRACT

A digital control apparatus for a switching DC-DC converter is described. The converter comprises includes at least one power transistor and is able to provide a regulated output voltage on a load. The apparatus comprises includes digital control digital means having in input a reference digital input signal and being able to provide provides a modulating signal to a PWM device; the PWM device to which is has in input the modulating signal and which provides an output square wave signal for driving the power transistor of said the DC-DC converter. The apparatus comprises digital means able to operate on the square wave signal to obtain that it has a such that there is non-linear modulation only when the value of a signal on the load is lower or higher than a prefixed value range of said signal on the load.